

Serial No. 10/016,870

### **REMARKS**

Claims 1 to 19 remain pending in the application.

#### **§112 Claim Rejections**

With respect to the rejection to claim 1 under 35 U.S.C. §112, second paragraph, reconsideration by the Examiner is respectfully requested on the following grounds. The term "is chosen to limit" has been replaced by the term "limits" to clarify, but not narrow the scope of, claim 1. This amendment to claim 1 is believed to overcome the Examiner's rejection under 35 U.S.C. §112..

#### **§102 Claim Rejections**

With respect to the rejection of claims 1, 3-4, 8, 10, 12, 17 and 19 under 35 U.S.C. §102 as being unpatentable over Alhamad (US 6,349,774), reconsideration by the Examiner is anticipated on the following grounds.

The Examiner alleges that the expandable metal product for use in extinguishing fires taught by Alhamad anticipates the present claimed invention. Alhamad teaches a three dimensional metal net obtained by longitudinally stretching a continuous sheet of metal foil (column 2, lines 29-31). The metal net is laid over a surface fire and smothers the fire (column 2, lines 31-32) by reducing the heat of the fire and thus the amount of vapor produced, as well as by preventing the flame from reaching vapor and oxygen above the fire (column 2, lines 41-45). This clearly teaches away from the fire retarding device of the present claimed invention which, in contrast, is superposed on a hot casing before fire ignition and acts to limit flame propagation of an ignited fluid. In addition, in order to obtain a maximum net area,

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Alhamad teaches maximizing the eye or void size and minimizing the distance between slits (column 6, lines 43-47). This clearly teaches away from the fire retarding device of the present claimed invention which, in contrast, limits the void size such as to limit the propagation of an ignited fluid.

The Applicant notes the Examiner's comment indicating that the recitation of an element as being "adapted to" perform a function is not a positive limitation. However the Applicant submits that giving the phrase "adapted to cover at least a portion of the hot casing" patentable weight, has no bearing on the objection to the claims as being unpatentable over Alhamad. The Applicant also notes that the Examiner did not give weight to "wherein said maximum void size is chosen to limit flame propagation of an ignited fluid through said member", however believes that at least in view of the amendment made to claim 1 pursuant to the objection under U.S.C. §112, the void size is now positively recited and should accordingly be given patentable weight.

In view of the forgoing, independent claims 1, 10 and 12 clearly define an invention which is not anticipated by Alhamad. Accordingly, withdrawal of the rejection under 35 U.S.C. §102 of claims 1, 10 and 12 is anticipated. Further, at least in view of their dependence on claims 1, 10 and 12, claims 3-4, 8, 17 and 19 are also not believed to be anticipated by Alhamad, and therefore withdrawal of their rejection under 35 U.S.C. §102 is similarly anticipated.

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### §103 Claim Rejections

With respect to the rejection of claim 16 under 35 U.S.C. §103(a) as being unpatentable over Alhamad (US 6,349,774), reconsideration by the Examiner is anticipated on the following grounds.

Alhamad cannot be said to disclose the claimed invention. The Examiner's allegation that void size and density is a result effective variable is false. Increasing the void size beyond a predetermined maximum size does not further limit flame propagation, but would actually permit increased flame propagation. As described in paragraph [0025] of the present application, a flame requires at least a certain amount of space to propagate once ignited. If there is insufficient space adjacent the flame, the flame cannot propagate in that direction. If the plurality of voids each have said predetermined maximum size, there will be insufficient space to allow the flame to propagate. Therefore, the Examiner's allegation that an appropriate void size is merely an optimum value of a result effective variable is untrue.

In view of the forgoing, claim 16 clearly defines an invention which is not rendered obvious by Alhamad. Accordingly, withdrawal of the rejection under 35 U.S.C. §103(a) of claim 16 is anticipated.

With respect to the rejection of claims 2, 7-8, 11, 13-14 and 18 under 35 U.S.C. §103(a) as being unpatentable over Alhamad (US 6,349,774) in view of Gooliak (US 2003/0060107 A1), reconsideration by the Examiner is anticipated on the following grounds.

As stated above, Alhamad teaches a metal net which is laid over a surface fire and smothers the fire by reducing the heat thereof and thus the amount of vapor

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produced, as well as by preventing the flame from reaching vapor and oxygen above the fire. This clearly teaches away from the fire retarding device of the present claimed invention which, in contrast, is superposed on a hot casing before fire ignition and acts to limit flame propagation of an ignited fluid. In addition, Alhamad teaches maximizing the eye size while minimizing the distance between slits in order to obtain a maximum net area. This clearly teaches away from the fire retarding device of the present claimed invention which, in contrast, limits a maximum void size such as to limit the propagation of an ignited fluid. Clearly, Alhamad cannot be said to teach the claimed invention.

Gooliak teaches a composite thermal insulating blanket or wrap which reduces heat transfer from a high temperature surface such as the tube (32). Any fire resistance provided by such a composite insulating blanket is achieved by reducing the temperature of the hot body to a level less likely to cause a fire, and/or by shielding the outer surface of the hot body from direct contact with any flammable fluid. Only the innermost layer (34) of Gooliak's composite blanket even remotely resembles the present claimed invention. However, this inner layer is defined by Gooliak as being a "reflective barrier against radiant heat" (line 8, paragraph [0026]), which is not the case either with the present invention or with the net taught by Alhamad. Gooliak thus teaches away from the presently claimed invention and from the invention taught by Alhamad.

In view of the forgoing, it would not have been obvious to use the metal sheet of Alhamad as a layer of the Gooliak blanket. Moreover, such a combination would teach away from the presently claimed invention. Accordingly, claims 2, 7-8, 11, 13-

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14 and 18 clearly define an invention which is not rendered obvious by Alhamad in view of Gooliak. Accordingly, withdrawal of the rejection under 35 U.S.C. §103(a) of claims 2, 7-8, 11, 13-14 and 18 is anticipated.

With respect to the rejection of claims 5 and 6 under 35 U.S.C. §103(a) as being unpatentable over Alhamad (US 6,349,774) in view of Nevin (GB 2,266,051 A), reconsideration by the Examiner is anticipated on the following grounds.

As stated above, the Applicant believes that Alhamad teaches away from the present invention. Nevin discloses a fire extinguishing carpet that reduces the heat and restricts oxygen flow to the fire in such a way to extinguish or at least reduce the fire to a minimum. The metallic fire extinguishing carpet disclosed by Nevin acts both as a heat sink, to lower the temperature of the hot gases below their ignition temperature, and as an impermeable barrier to prevent oxygen from reaching the fire or to prevent flames from coming in direct contact with the tank or hot object. Although this is similar to the net taught by Alhamad, the combination of Alhamad and Nevin would clearly teach away from the fire retarding device of the present claimed invention which, in contrast, acts to limit flame propagation of an ignited fluid.

In view of the forgoing, claims 5 and 6 clearly define an invention which is not rendered obvious by Alhamad in view of Nevin. Accordingly, withdrawal of the rejection under 35 U.S.C. §103(a) of claims 5 and 6 is anticipated.

It is submitted, therefore, that claims 1 to 19 are in condition for allowance. Reconsideration of the Examiner's rejections is respectfully requested.

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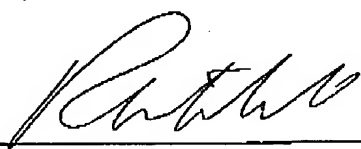
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In the event that there are any questions concerning this amendment or the application in general, the Examiner is respectfully urged to telephone the undersigned so that prosecution of this application may be expedited.

Respectfully,

April 28, 2004

Date

  
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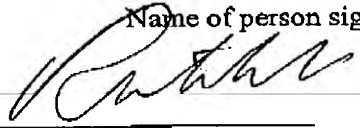
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